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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/658,514 | 09/09/2003 | Ed H. Frank | 14179US02 | 1784 |
| 23446 7590 01/11/2008 MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661 | | | EXAMINER CHEA, PHILIP J | |
| | | | ART UNIT 2153 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/658,514

Applicant(s)

FRANK ET AL.

Examiner

Philip J. Chea

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

This Office Action is in response to an Amendment filed October 22, 2007. Claims 1-36 are currently pending, of which claims 28-36 are new. Any rejection not set forth below has been overcome by the current Amendment.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yin et al. (US 5,982,748), herein referred to as Yin, further in view of Cheng et al. (US 6,766,309), herein referred to as Cheng.
3. As per claims 1,10,19,28, Yin discloses a method for providing network management in a local area network, the method comprising:

receiving from one or both of a first access point and/or a first switch, a first messaging protocol message containing quality of service (QoS) information (see column 5, lines 51-55, where a first messaging protocol message is considered a node sending a connection request containing QoS requirements to another node, where the node can be a switch see column 4, lines 29-34);

responsive to said first messaging protocol message, determining at least a minimum QoS level for operation of one or more of said first switch, said first access point, a second access point, and/or a second switch (see column 3, lines 29-35, where the CAC of node in Fig. 1 receiving the request will determine at least a minimum QoS requirement for the new connection request from first switch and column 5, lines 55-58 further describing a determining of the QoS parameters associated with the requested connection from a first switch); and

distributing QoS information corresponding to said determined at least a minimum QoS level to one or more of said first switch, said first access point, said second access point and/or said second switch, using a second messaging protocol message (see column 6, lines 27-35, where QoS information (i.e. second protocol message QoS connection request) is sent to a second switch).

Although the system disclosed by Yin shows substantial features of the claimed invention (discussed above), it does not expressly disclose a hybrid wired/wireless network and an access point. However, Yin discloses that the invention can include wireless implementations (see column 11, lines 51-54). Further, Yin discloses that the node may be any network device capable of directing various data flows across a port. At the time of the invention, a person having ordinary skill in the art would have found it obvious that a node could be an access point for wireless implementations. In considering the hybrid network, it is old and well known that networks can comprise of multiple switches and access points in order to support a diverse group of devices that require certain QoS parameters.

In further support of a hybrid wired/wireless network and an access point, in analogous art, Cheng discloses a hybrid communication environment in which both wired and wireless communication links in a communication channel can exist and how quality of service can be enhanced if the application knows whether there exists wireless links in the communication channel and adapt its behavior accordingly (see Abstract). Further showing details showing a hybrid wired and wireless network with an access point (i.e. wireless gateway) and performing quality of service enhancements can be found in column 10, lines 24-36). Given the teaching of Cheng, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Yin by employing a hybrid wire/wireless network and an access point, such as disclosed by Cheng, in order to provide enhanced quality of service when it is known that a wireless link exists.

As per claims 2,11,20,29, Yin further discloses providing access to at least one of a plurality of access devices based on said distributed QoS information (see column 6, lines 27-31, where accepted connection request implies access to a device).

As per claims 3,12,21,30, Yin further discloses queuing traffic associated with at least one of said plurality of access devices to maintain said determined at least a minimum QoS level (see column 4, lines 49-54).

As per claims 4,13,22,31, Yin further discloses prioritizing said traffic associated with at least one of said plurality of access devices to maintain said determined at least a minimum QoS level (see column 8, lines 42-50).

As per claims 5,14,23,32, Yin further discloses scheduling access by at least one of said plurality of access devices to at least one of said first and second access points (see column 4, lines 60-64).

As per claims 6,15,24,33, Yin further discloses distributing said QoS information to at least a portion of the hybrid wired/wireless local area network (see column 6, lines 27-35, where QoS information (i.e. accept QoS connection request) is sent to a second switch implying a portion of the hybrid wired/wireless local area network).

As per claims 7,16,25,34, Yin further discloses allocating bandwidth to maintain said at least a minimum QoS level (see column 4, lines 42-48 and 65-67).

As per claims 8,17,26,35, Yin further discloses balancing a load on at least one of said first switch, said first access point, said second access point and said second switch to maintain said at least a minimum QoS level (see column 6, line 66 – column 7, line 30).

As per claims 9,18,27,36, Yin further discloses that each of said first and second messaging protocol messages comprises at least one message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message and a device discovery message (see column 5, lines 51-55 and see column 6, lines 27-35).

Response to Arguments

4. Applicant's arguments filed October 22, 2007 have been fully considered but they are not persuasive.

A) Applicant contends that Yin discloses receiving at least two connection requests and would contradict the teaching of a first messaging protocol message.

In considering A), it is not clearly claimed exactly how many messaging protocol messages are allowed. The claim merely requires a first message protocol message. Even if there were more than one protocol message, it would still meet the limitation of a first messaging protocol message. The Examiner is considering a first node sending a connection request containing QoS to a second node (see column 5, lines 51-55) the first messaging protocol message.

B) Applicant contends that Yin does not disclose determining at least a minimum QoS level for operation of one or more of said first switch, said first access point, a second access point, and/or a second switch.

In considering B), the Examiner respectfully disagrees. The Examiner has cited a portion in Yin that at least describes determining at least a minimum QoS level in column 3, lines 29-35 "Before accepting the new connection, the CAC must determine that the new connection will receive at minimum the Quality of Service (QoS) requirements requested." Even if Yin only disclosed allocating bandwidth, the Examiner believes that bandwidth is a type of Quality of Service. That is, the higher the bandwidth the better the Quality of Service because QoS is the idea that characteristics such as, transmission rates, error rates, etc. are measured improved and to some extent guaranteed.

C) Applicant contends that Yin does not disclose distributing QoS information corresponding to said determined at least a minimum QoS level to one or more of said first switch, said first access point, said second access point and/or said second switch, using a second messaging protocol message.

In considering C), the Examiner respectfully disagrees. Yin shows that a second message is sent in the form of a second protocol message QoS connection request to a second switch in column 6, lines 27-35).

Conclusion


5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J. Chea whose telephone number is 571-272-3951. The examiner can normally be reached on M-F 6:30-4:00 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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Examiner